TABLE A-1. MATCH BETWEEN THE TYPES OF CONDITIONS TREATED DURING PEACETIME AT MILITARY MEDICAL FACILITIES WORLDWIDE AND THOSE THAT COULD BE EXPECTED DURING WARTIME

	Records			ICD-9 Codes		
	Total	Match	Percentage of Total	Total	Match	Percentage of Total
Disease and Nonbattle Injury Conditions						
Medical Centers	316,009	235,401	74	6,174	4,478	73
All Other Hospitals	721,322	529,791	73	7,021	4,985	71
Total	1,037,331	765,192	74	13,195	9,463	72
Wounded-In-Action Conditions						
Medical Centers	316,009	18,355	6	6,174	1,122	18
All Other Hospitals	721,322	40,015	6	7,021	1,335	19
Total	1,037,331	58,370	6	13,195	2,457	19

SOURCE: Congressional Budget Office based on an analysis of data for 1993 from the Defense Department's Retrospective Case-Mix Analysis System for an Open System Environment.

NOTE: ICD-9 = International Classification of Diseases, Ninth Revision. The match between conditions treated during peacetime and those that could be expected during wartime was estimated by CBO using the diagnoses system of the International Classification of Diseases, Ninth Revision.

TABLE A-2. MATCH BETWEEN THE CONDITIONS MOST FREQUENTLY TREATED AT THE MILITARY MEDICAL CENTERS AND THOSE THAT MOST FREQUENTLY OCCURRED AMONG U.S. MARINES IN VIETNAM

	Conditions	
	Diseases and Nonbattle Injuries	Wounded in Action
Total Records	107,088	107,088
Match	22,948	0
Percentage of Records That Match	21	0

SOURCE: Congressional Budget Office based on data from the Naval Health Research Center.

NOTE: The match between the conditions treated at the military medical centers and those that occurred among U.S. marines was estimated by CBO using the diagnoses system of the International Classification of Diseases, Ninth Revision.

TABLE A-3. TOP 25 DIAGNOSTIC CATEGORIES AMONG U.S. MARINES IN VIETNAM

Battle Injury[a]	Disease and Nonbattle Injury[b]
Open Wounds Multiple/Other/Unspecified	Other Symptoms/Ill-Defined Conditions
Open Wound/Knee/Lower Leg/Ankle	Febrile Illness Excluding Pneumonia
Wound Face/Jaws/Neck	Cellulitis and Abscess
Open Wound Hip/Thigh	Infective and Parasitic Diseases/Other
Open Wound Upper Limb(s) Multiple	Neurosis/Personality Disorders/TSD/Conduct
Open Wound Lower Limb(s) Multiple	Gastritis Duodenitis/Enteritis/Colitis
Open Wound Elbow/Forearm/Wrist	Diarrheal Disease/Dysentery
Fracture Tibia and Fibula	Other Infections Skin and Subcutaneous Tissue
Open Wound Hand(s)/Fingers	Nervous System/Sense Organ Disorders/Other
Open Wound Shoulder/Upper Arm	Helminthiasis
Fracture Hand/Wrist/Fingers	Supplemental Classification/Special Conditions
Fracture Radius/Ulna	Effects Heat/Light
Fracture Femur	Respiratory System Diseases Other
Open Wound Foot/Toes	Neoplasms Benign and Unspecified
Open Wound Buttocks	Strains/Sprains Multiple/Other/Unspecified
Fracture Multiple/Other/Unspecified	Arthropathies/Joint Disorders/Other
Fracture Ankle/Foot/Toes	Dermatophytosis and Dermatomycosis
Fracture Humerus	Strains/Sprains Ankle/Foot
Concussion	Behavioral Disorders/Other
Multiple Fragment Wound Brain	Male Genital Organs/Other Disorders
Open Wound Perforation Ear	Ear and Mastoid, Other Diseases of
Multiple Fragment Wound Back	Bronchitis and Bronchiolitis
Pneumothorax/Hemothorax	Open Wound Hands/Fingers
Multiple Fragment Wound Chest	Hernia Abdominal Cavity All Types
Fracture Face Bones	Appendicitis

SOURCE: Congressional Budget Office based on data from the Naval Health Research Center.

NOTE: TSD = traumatic stress disorder.

a. The top 25 battle injury diagnostic categories represent close to 85 percent of the total care delivered to U.S. marines in Vietnam within this category of injury.

b. The top 25 diagnostic categories for disease and nonbattle injuries represent close to 60 percent of all care delivered to U.S. marines in Vietnam within this category of injury.

TABLE A-4. TOP 50 PRINCIPAL DIAGNOSES AT THE MILITARY MEDICAL CENTERS, 1993

	Description	Records
1.	Single Infant Born in Hospital, Without Cesarean Delivery	20,865
2.	Coronary Atherosclerosis	4,879
3.	Single Infant Born in Hospital, by Cesarean Delivery	4,359
4.	Unspecified Chest Pain	3,694
5.	Encounter for Chemotherapy	3,495
6.	Inguinal Hernia Not Otherwise Specified, Unilateral or Unspecified	3,366
7.	Unspecified Cataract	2,881
8.	Sterilization	2,716
9.	Delivery in a Completely Normal Case	2,500
10.	Pneumonia, Organism Unspecified	2,478
11.	Fetal Distress Affecting Management of Mother, Delivered	2,239
12.	Threatened Premature Labor, Antepartum	2,119
13.	Unspecified Otitis Media	1,965
14.	Benign Neoplasm of Colon	1,948
15.	Intermediate Coronary Syndrome	1,880
16.	Congestive Heart Failure	1,870
17.	Asthma, Unspecified Type, Status Asthmaticus Not Mentioned	1,782
18.	Deviated Nasal Septum	1,772
19.	Abdominal Pain	1,725
20.	Intervertebral Disc Displacement Without Myelopathy, Lumbar	1,722
21.	Calculus of Gallbladder with Other Cholecystitis	1,666
22.	Alcohol Dependence, Other and Unspecified, Unspecified Use	1,661
23.	Atrial Fibrillation	1,625
24.	Second-Degree Perineal Laceration, Delivered	1,570
25.	Disturbances in Tooth Eruption	1,548
26.	First-Degree Perineal Laceration, Delivered	1,543
27.	Esophagitis	1,461
28.	Follow-Up Examination Following Surgery	1,384
29.	Observation for Other Specified Suspected Conditions	1,344
30.	Chronic Tonsillitis	1,288
31.	Cancer of Prostate	1,266
32.	Old Disruption of Anterior Cruciate Ligament	1,215
33.	Chronic Airways Obstruction, Not Elsewhere Classified	1,163
34.	Gastroenteritis and Colitis, Other/Unspecified Noninfectious	1,142
35.	Acute Appendicitis Without Mention of Peritonitis	1,128
36.	Cord Entanglement Without Mention of Compression, Delivered	1,124
37.	Spontaneous Abortion, Incomplete	1,123
38.	Convulsions	1,119
39.	Other Follow-Up Examination	1,115
40.	Early Onset of Delivery, Delivered	1,094

(Continued)

TABLE A-4. CONTINUED

	Description	Records
41.	Aftercare, Removal of Fracture Plate, Internal Fixation Device	1,089
42.	Adjustment Reaction with Brief Depressive Reaction	1,072
43.	Previous Cesarean Delivery in Pregnancy, Delivered (Rev. Oct. 1992)	1,068
44.	Redundant Prepuce and Phimosis	1,059
45.	Urinary Tract Infection, Site Not Specified	1,039
46.	Alcohol Dependence, Other and Unspecified, Continuous Use	1,035
47.	Carpal Tunnel Syndrome	1,012
48.	Hyperplasia of Prostate	998
49.	Diffuse Cystic Mastopathy	950
50.	Volume Depletion	932

SOURCE: Congressional Budget Office based on data from the Defense Department's Retrospective Case-Mix Analysis System for an Open System Environment.

NOTE: The top 50 principal diagnoses treated at the military medical centers represent approximately 35 percent of the total cases treated at the military medical centers.

TABLE A-5. MATCH BETWEEN THE TYPES OF CONDITIONS TREATED AT THE R ADAMS COWLEY SHOCK TRAUMA UNIT AND THOSE EXPECTED DURING WARTIME

	Conditions	
	Diseases and Nonbattle Injuries	Wounded in Action
Trauma Admissions		
Total	19,850	19,850
Match	92	19,534
Percentage of records that match	0.5	98
ICD-9 Codes		
Total	305	305
Match	2	301
Percentage of diagnoses that match	0.7	99

SOURCE: Congressional Budget Office based on an analysis of the data for 1993 from the R Adams Cowley Shock Trauma Center, Baltimore, Maryland.

NOTE: The match between conditions treated at the R Adams Cowley Shock Trauma Center and those that could be expected during wartime was estimated by CBO using the diagnoses system of the International Classification of Diseases, Ninth Revision.

APPENDIX B

SAVINGS FROM SIZING THE MILITARY HEALTH CARE SYSTEM TO ITS WARTIME MISSION ONLY

This appendix describes the method that the Congressional Budget Office used to estimate savings from downsizing the military health care system in the United States to its wartime requirements. That estimate of savings in steady state--about $9 billion annually--is based on the President's budget request submitted to the Congress for fiscal year 1996. It is important to point out that the savings estimated in this appendix do not take into account the cost to the Department of Defense of providing health care to non-active-duty beneficiaries in ways other than through the military health care system. Had those costs been considered, as they are in Chapter 5 of this paper, they might have offset some--or perhaps even all--of those savings.

The approach described here is only one of several ways to estimate savings from reducing the size of the military health care system. A higher or lower estimate of savings could result from differences in definitions of the wartime mission and the levels of funding required to support that mission. Other factors could also influence estimates of savings from downsizing the system. For example, a more comprehensive accounting of the resources spent to support the medical mission of the department could lead to larger savings. CBO's estimates of savings are based on only those costs captured by the accounting method used by the Assistant Secretary of Defense for Health Affairs. The total medical budget for defense, however, is arguably higher than the approximately $15.5 billion budget identified by Health Affairs.

METHOD

CBO's estimate of savings is based on an estimate that DoD would need to spend $6.5 billion in 1996 to perform the wartime medical mission. That estimate includes funding for four specific accounts included in the total medical budget: operation and maintenance, military medical personnel, procurement, and construction (see Table B-1). In addition, that estimate assumes that DoD would no longer provide health care to nonactive-duty beneficiaries.

DOD'S CAPITATION MODEL

To estimate the costs of the wartime mission, CBO used the framework of the capitation method developed by the Office of Health Affairs, since DoD currently uses that approach to determine the level of financing needed to support the medical missions of each of the three services. DoD's capitation model divides the two most significant pieces of the medical budget--military personnel and operation and maintenance funding--into three categories of spending. (DoD excludes the rest of the medical budget--that is, funding for procurement and construction--from consideration under this model.)

TABLE B-1. ILLUSTRATIVE ESTIMATE OF SAVINGS IN DoD's TOTAL MEDICAL BUDGET IN 1996 FROM DOWNSIZING THE MILITARY HEALTH CARE SYSTEM IN THE UNITED STATES TO ITS WARTIME REQUIREMENTS (In millions of dollars)

Budget Category	Proposed Budget		Reduction in Budget	
	Total[a]	Wartime[b]	Dollars	Percentage
Operation and Maintenance	9,866	3,092	6,773	69
Procurement	288	144	144	50
Military Personnel	4,997	3,078	1,919	38
Construction	314	157	157	50
Total	15,464	6,472	8,993	58

SOURCE: Congressional Budget Office.

NOTE: Estimates of the reduction in the total medical budget from sizing the military health care system to its wartime mission only exclude several additional costs, including the cost of providing health care to military beneficiaries in the United States other than active-duty personnel and any implementation costs associated with downsizing, such as the costs of facility closures.

a. The total medical budget as proposed by the President for 1996. These estimates exclude any other Department of Defense expenses that are not captured by the accounting system used by the Assistant Secretary of Defense for Health Affairs.

b. The budget for the wartime mission as estimated by CBO. These estimates include providing health care to all military beneficiaries living in locations overseas and active-duty personnel in the United States.

Category 1: Military Health Care Support

This category includes those services that are not directly related to the size of the military force structure but that DoD considers are specifically related to the department's wartime mission. Several types of activities are included in this category, such as the Armed Forces Institute of Pathology and all spending on care provided overseas.

Category 2: Medical Readiness and Unique Requirements for Active-Duty Personnel

This category includes those services that are more directly related to the size of the military force structure than the services included in category 1, and thus are considered to be specifically linked to the department's wartime mission. The category includes a range of services, such as all readiness exercises, training, veterinary services, and spending on medical education.

Category 3: Medical Health Care Services

This category includes all resources remaining in the total medical budget after those in the first two categories have been identified. Almost 75 percent of the total medical budget falls into this third category, which is intended to encompass those services that are most directly comparable to civilian health care. For example, included in this category are the costs of care provided to beneficiaries in the United States--including care provided to active-duty personnel--in military medical facilities and under the Civilian Health and Medical Program of the Uniformed Services.

DIVIDING THE TOTAL MEDICAL BUDGET INTO PEACETIME AND WARTIME COSTS

To determine the funding required to support the wartime mission--as well as the savings in the total medical budget from sizing the military health care system to its wartime mission--CBO first apportioned funding for both operation and maintenance activities and military medical personnel among the three categories of spending that DoD describes in its capitation method. (That task was performed by CBO based on the data provided by the Department of Defense in its budget proposal for 1996.) The funding required to support the wartime mission was then estimated as described in the following sections.

OPERATION AND MAINTENANCE

This section of the appendix describes how CBO estimated the funding that might be required from the budget for operation and maintenance (O&M) that would be needed to support the wartime mission. It also examines the reduction in the O&M budget from reducing the size of the military health care system to its wartime mission only (see Table B-2).

Categories 1 and 2

With the exception of those costs that are specifically related to the number of active-duty military personnel, CBO assumed that all O&M costs in categories 1 and 2 were needed to support the wartime mission. Those costs include all those related to providing care to military beneficiaries living in overseas locations. As Table B-2 shows, however, the proposed amounts for health care professional scholarships and education and training were reduced by 50 percent, in proportion to the reduction in the military medical work force under a downsized system.

Category 3

O&M costs included in this category reflect a range of services that the department provides to its beneficiaries. For example, the cost of operating military medical facilities and CHAMPUS are included in this category (as shown in Table B-2).

Funding for O&M activities related to peacetime care was reduced by about 70 percent, reflecting the fraction of total care received by non-active-duty military beneficiaries living in the United States. Specific programs not providing benefits for active-duty personnel were eliminated entirely. A reduction of only 50 percent was made in the Defense Medical Programs Activity, however, to reflect the mix of peacetime- and wartime-related systems that this fund supports. For example, the fund supports the costs of several automated systems, some with dual missions. Examples include the Medical Expense Reporting System, the Composite Health Care System, and the Blood Supply System.

MILITARY PERSONNEL

DoD's capitation method treats all military medical personnel resources falling into categories 1 and 2 as related to the wartime mission. Funding for resources in category 3 was reduced by 70 percent, based on the proportion of care received by

active-duty personnel. Overall, CBO estimates that about 60 percent of the resources for military medical personnel would be needed to support the wartime mission (see Table B-3).

MILITARY PROCUREMENT AND MILITARY CONSTRUCTION

Estimates of costs needed to support the peacetime and wartime missions could not be made for military procurement and construction based on DoD's capitation model. CBO assumed that 50 percent of the funding in each account would be needed to support the wartime mission.

TABLE B-2. ILLUSTRATIVE ESTIMATE OF ANNUAL SAVINGS IN DOD's BUDGET FOR OPERATION AND MAINTENANCE FROM DOWNSIZING THE MILITARY HEALTH CARE SYSTEM IN THE UNITED STATES TO ITS WARTIME REQUIREMENTS (In millions of 1996 dollars)

	Proposed Budget		Reduction in Budget	
	Total	Wartime[a]	Dollars	Percentage
Costs in Categories 1 and 2				
Armed Forces Institute of Pathology	32	32	0	0
Aeromedical Evacuation System	83	83	0	0
Environmental Compliance	17	17	0	0
Medical Centers/Hospitals/ Clinics OCONUS	233	233	0	0
Dental Care OCONUS	52	52	0	0
Facility Support[b]	84	84	0	0
Military Unique Requirements	96	96	0	0
Veterinary Services	10	10	0	0
Health Care Professional Scholarships	86	43	43	50
Education and Training	87	43	43	50
Uniformed Services University of the Health Sciences	44	44	0	0
Examining Activities	23	23	0	0
Other Health Activities	128	128	0	0
Military Public/Occupational Health	191	191	0	0
Subtotal	1,165	1,079	86	7

(Continued)

TABLE B-2. CONTINUED

	Proposed Budget		Reduction in Budget	
	Total	Wartime[a]	Dollars	Percentage
Costs in Category 3				
Medical Centers/Hospitals/ Clinics CONUS	2,941	1,176	1,765	60
PRIMUS/NAVCARE Clinics	94	28	66	70
Dental Care CONUS	135	135	0	0
Facility Support[b]	801	240	561	70
Management Headquarters	26	8	18	69
Emergency Care for Military Personnel	181	181	0	0
Visual Information Systems	12	4	8	67
Other Health Activities	128	128	0	0
CHAMPUS Benefits and Administration	2,484	0	2,484	100
Health Care Support Contracts	1,356	0	1,356	100
Uniformed Services Treatment Facilities	316	0	316	100
Defense Medical Programs Activity	226	113	113	50
Subtotal	8,700	2,013	6,687	77
All Operation and Maintenance Costs				
Total	9,866	3,092	6,773	69

SOURCE: Congressional Budget Office based on data from the Department of Defense.

NOTES: Estimates of the reduction in the budget are based on the President's budget request for 1996. Reductions shown here are illustrative only and exclude many other costs related to downsizing the military medical system, including the costs of closing military medical facilities.

OCONUS = Outside the continental United States; CONUS = continental United States; PRIMUS = Army civilian-run outpatient clinics; NAVCARE = Navy civilian-run outpatient clinics; CHAMPUS = Civilian Health and Medical Program of the Uniformed Services.

a. Budget for the wartime mission as estimated by CBO.

b. Includes funding for minor construction, maintenance and repair, base communications, base operations, and real-property services.

TABLE B-3. ILLUSTRATIVE ESTIMATE OF ANNUAL SAVINGS IN THE BUDGET FOR MEDICAL MILITARY PERSONNEL FROM DOWNSIZING THE MILITARY HEALTH CARE SYSTEM IN THE UNITED STATES TO ITS WARTIME REQUIREMENTS (In millions of 1996 dollars)

	Proposed Budget		Reduction in Budget	
	Total	Wartime[a]	Dollars	Percentage
Costs in Categories 1 and 2	2,256	2,256	0	0
Costs in Category 3	2,741	822	1,919	70
Total	4,997	3,078	1,919	38

SOURCE: Congressional Budget Office based on data from the Department of Defense.

NOTE: Estimates of the reductions in military personnel from sizing the military health care system to its wartime mission only are based on the President's budget request for 1996.

a. Budget for the wartime mission as estimated by CBO.

APPENDIX C

ESTIMATING THE EFFECTS OF ENROLLING MILITARY BENEFICIARIES IN THE FEHB PROGRAM

As discussed in Chapter 5, one way for the Department of Defense to provide peacetime care would be to offer military beneficiaries an opportunity to participate in the Federal Employees Health Benefits program on a voluntary basis (active-duty personnel would not be eligible). Regardless of their enrollment in the FEHB program, military beneficiaries other than active-duty personnel would no longer have the option to receive care from the military health care system, either at military medical facilities or under CHAMPUS.

Estimates are presented in Chapter 5 of the cost to the government of enrolling military beneficiaries in the FEHB program under each of three options--a basic option and two additional ones with more generous benefits. Essential to all three estimates are two key assumptions: the number of people who would enroll in the FEHB program and, equally important, how enrolling military beneficiaries would affect the average FEHB premiums.

ESTIMATING ENROLLMENT LEVELS

How many military beneficiaries would enroll in the FEHB program? A considerable amount of uncertainty rests with estimating levels of enrollment in the FEHB program among military beneficiaries. Nonetheless, estimates of enrollment rates were needed for cost-estimating purposes.

To estimate levels, CBO assumed that military beneficiaries would have an annual opportunity to elect or change plans until age 62. (After age 62, eligible military beneficiaries would not be eligible to enroll in the FEHB program.) Beneficiaries wishing to participate in the FEHB program after 62 years of age would have to enroll in a plan under the FEHB program by 62 years of age and remain continuously enrolled after that. As a result of that assumption, enrollment levels vary by category of beneficiary, thereby reflecting the sequential nature of decisions to enroll in the FEHB program.

ESTIMATING ENROLLMENT LEVELS FOR THOSE UNDER 65 YEARS OF AGE

To estimate enrollment levels for the three options presented in this paper, CBO first estimated the rates of enrollment among military beneficiaries under the basic option. Then, rates for the two additional options were estimated relative to the basic option. That method was only used for estimating the participation rates among dependents of active-duty personnel and retirees and their families under 65 years of age. (For reasons discussed later in this appendix, CBO did not apply that method to military beneficiaries 65 years of age or older.)

ESTIMATING ENROLLMENT UNDER THE BASIC OPTION

Estimated rates of participation in the FEHB program among military beneficiaries under the basic option were developed by estimating rates of nonparticipation for eligible military beneficiaries and then subtracting the rate of nonparticipation from 100 percent. Those estimates were made by type of policy (self-only and family coverage) and by category of beneficiary (dependents of active-duty personnel and retirees and their dependents).[1]

Nonparticipation rates for military beneficiaries reflected the rate of nonparticipation in the FEHB program today among eligible federal workers and the rate of eligibility for employer-provided private insurance among military beneficiaries. Military beneficiaries are assumed to behave like other federal employees, but their behavior is also assumed to be affected by any additional options that they might have to purchase health insurance.[2]

CBO assumed that about 75 percent of those eligible for private insurance would not enroll in the FEHB program, based on consideration of the difference between the share of the premium paid by the government under the FEHB program and that paid by typical private employers. Under the FEHB program, the share of the premium that the government pays is about 72 percent on average, while private employers pay about 85 percent on average of premiums for their employees.

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1. Data from the Defense Manpower Data Center were used to determine how the total military population of active-duty dependents, retirees, and their families might be distributed by type of policy.

2. For example, the number of choices to purchase employer-provided health insurance would be greater for an employed spouse of an active-duty personnel member compared with an unmarried federal worker. In addition to the choice that all spouses of active-duty personnel would face to enroll in the FEHB program, some working spouses are eligible to purchase health insurance coverage from their employer. Yet most federal workers who are not married would probably have the option of only enrolling in the FEHB program.

The data used to estimate nonparticipation rates came from the Office of Personnel Management (OPM) and the Department of Defense. According to OPM, the rate of nonparticipation among active workers who are eligible for coverage under the FEHB program is about 11 percent for unmarried people and about 21 percent for married people. Data on eligibility for private insurance among military beneficiaries were based on the 1992 DoD Survey of Military Medical Care Beneficiaries (see Table C-1). Based on that data, nonparticipation rates were estimated by adding the nonparticipation rate in the FEHB program and 75 percent of those eligible for private insurance. Actual participation rates could be higher or lower than assumed by CBO.

ESTIMATING ENROLLMENT LEVELS UNDER THE MORE GENEROUS OPTIONS

For the additional options, enrollment levels were estimated relative to the basic option. That estimate was done by examining how the percentage of military beneficiaries enrolling in the FEHB program under the basic option would change in response to a change in their premium expenses under the other options. Again, CBO estimated enrollment levels by type of policy (self-only and family coverage) and by beneficiary category (dependents of active-duty personnel and retirees and their dependents).

TABLE C-1. ELIGIBILITY FOR PRIVATE INSURANCE AMONG MILITARY BENEFICIARIES (In percent)

	Active-Duty Personnel	Retirees Under Age 65	Retirees 65 or Older
Single	n.a.	50	70
Married	25	70	75

SOURCE: Congressional Budget Office estimates.

NOTE: n.a. = not applicable. Percentages are rounded to the nearest 5 percent.

Estimates of eligibility for private insurance are based on the 1992 DoD Survey of Military Medical Care Beneficiaries. Respondents included active-duty personnel, retirees, and survivors.

For the two additional options, the percentage change in the number of military beneficiaries enrolling in the FEHB program in response to the percentage change in the premium expenses under the basic option was estimated using an arc elasticity formula:

$$Q_1 = Q_0 [1 + E(P_1 - P_0)/(P_1 + P_0)]/[1 - E(P_1 - P_0)/(P_1 + P_0)]$$

where

Q = percentage enrolled in the FEHB program;
P = average premium;
E = elasticity (with appropriate sign attached);
0 = initial point; and
1 = new point.

USING THE ARC ELASTICITY FORMULA AND ASSIGNED VALUES TO CALCULATE ENROLLMENT LEVELS

In this formula, Q_1 represents the calculated level of enrollment among military beneficiaries in the FEHB program, given the assigned values for the other variables. (See Table C-2 for the values used for each variable in calculating the enrollment rates for self-only and family coverage under the two additional options examined in this paper.) Based on those calculated enrollment rates, Table C-3 shows the estimated number of subscribers among military beneficiaries by type of policy under the two additional options (plus the basic option).

Price Elasticity

One of the key values needed for this formula is the price elasticity, defined as the percentage change to be expected in a given value in response to a specified percentage change in one of its determinants. CBO used an elasticity estimated by Marquis and Long from a study of participation in health insurance among people with no access to employment-based insurance.[3] Marquis and Long report a long-run price elasticity of -0.60, meaning that a 10 percent increase in the costs of insurance would reduce the rate of participation by 6 percent.

3. M.S. Marquis and S.H. Long, *Worker Demand for Health Insurance in the Non-Group Market* (Santa Monica, Calif.: RAND, June 1993).

TABLE C-2. ASSIGNED VALUES USED IN CALCULATING ENROLLMENT RATES FOR SELF-ONLY AND FAMILY COVERAGE UNDER TWO FEHB OPTIONS

	Q_o	E	P_o	P_1	Calculated Q_1
Option 2[a]					
Dependents of Active-Duty Personnel					
Self-only	0.70	-0.60	595	330	0.99
Family	0.70	-0.60	1,395	745	1.02
Retirees and Dependents Under 65					
Self-only	0.52	-0.60	695	345	0.78
Family	0.37	-0.60	1,430	765	0.54
Option 3[b]					
Dependents of Active-Duty Personnel					
Self-only	0.70	-0.60	595	0	2.81
Family	0.70	-0.60	1,395	0	2.81
Retirees and Dependents Under 65					
Self-only	0.52	-0.60	695	230	0.96
Family	0.37	-0.60	1,430	460	0.70

SOURCE: Congressional Budget Office.

NOTES: CBO assumed that enrollment rates would be 100 percent if calculated Q_1 was equal to or greater than 1.0.

FEHB = Federal Employees Health Benefits; Q_o = initial level of enrollment; E = elasticity; P_o = initial price; P_1 = new price; Q_1 = new level of enrollment. The preceding are the values needed to calculate enrollment levels in the FEHB program among military beneficiaries using an arc elasticity formula. Estimates of price for family coverage for the military include an imputed amount for active-duty personnel.

a. Assumes that the government pays 85 percent of the average premium under the FEHB program.

b. Assumes that the government pays 100 percent of the average premium under the FEHB program for dependents of active-duty personnel and about 90 percent for retirees and dependents.

TABLE C-3. ESTIMATED NUMBER OF SUBSCRIBERS AMONG MILITARY BENEFICIARIES IN FISCAL YEAR 1996 UNDER THREE FEHB OPTIONS, BY TYPE OF POLICY (In thousands)

	Self-Only	Family	Total
	Option 1[a]		
Dependents of Active-Duty Personnel	222	439	661
Retirees and Dependents			
Under 65	150	389	539
65 or older	177	364	542
Total	550	1,193	1,742
	Option 2[b]		
Dependents of Active-Duty Personnel	314	628	942
Retirees and Dependents			
Under 65	226	568	794
65 or older	187	384	570
Total	727	1,579	2,306
	Option 3[c]		
Dependents of Active-Duty Personnel	317	628	945
Retirees and Dependents			
Under 65	286	736	1,022
65 or older	187	384	570
Total	790	1,747	2,537

SOURCE: Congressional Budget Office calculations based on data provided by the Defense Manpower Data Center.

NOTE: FEHB = Federal Employees Health Benefits.

a. Assumes that the government pays 72 percent of the average premium under the FEHB program.

b. Assumes that the government pays 85 percent of the average premium under the FEHB program.

c. Assumes that the government pays 100 percent of the average premium under the FEHB program for dependents of active-duty personnel and about 90 percent for retirees and dependents.

Price: Average Premium

The other key values needed to calculate the enrollment levels using an arc elasticity formula are P_0 (the initial price) and P_1 (the new price). The initial price represents the share of the premium paid by the employee under the basic option, whereas the new price represents the share of the premium paid by the employee under each of the additional options. (For reasons discussed later in this appendix, CBO did not apply this method to military beneficiaries 65 years of age or over.) An average share of the premium was calculated for all three options for two categories of subscribers: active workers and annuitants. All calculations assume that the appropriate comparisons to make are between dependents of active-duty personnel and active workers, and between retirees and their dependents and annuitants.

For the basic FEHB option (the first of the three options), CBO assumed that the average premiums for military beneficiaries enrolling in the FEHB program would be the same as average premiums for enrollees in the program today. To determine what those premiums were, CBO calculated average premiums to the government for 1996 for both active workers and annuitants. Under Option 2--which assumes that the government contribution would increase from about 72 percent to 85 percent of the average premium--the share of the premiums paid by beneficiaries were lowered accordingly. Option 3 assumes that all beneficiaries would pay no more on average than what they would be required to pay for enrolling in Tricare Prime (the HMO option offered by DoD). For that option, CBO simply reduced the average premium for military beneficiaries to an amount equal to their enrollment fee under Tricare Prime.

ENROLLMENT IN THE FEHB PROGRAM AMONG MILITARY BENEFICIARIES AGE 65 OR OLDER

Military beneficiaries who are 65 years of age or older are not eligible for care in the civilian sector reimbursed under CHAMPUS. Those beneficiaries may use only the direct care system. Given the system of priority-based access to care at military medical facilities, DoD estimates that roughly 30 percent rely on the military as their primary source of care. Based on that estimate, CBO assumed that the majority of beneficiaries in this group rely on other forms of health care coverage, such as Medicare.

Since Medicare may be the primary source of insurance coverage for most beneficiaries who are 65 years of age or older, CBO assumed that they would have a strong incentive to purchase a policy offered under the FEHB program under all three options, because many FEHB plans provide complete wraparound coverage to

Medicare. The differences--and incentives--are so strong for military beneficiaries who are eligible for Medicare to enroll in a plan under the FEHB program that CBO assumed enrollment rates of 95 percent under the basic option and 100 percent under the two enriched alternatives.

ESTIMATING THE EFFECT ON AVERAGE FEHB PREMIUMS

The three options would affect FEHB premiums differently. Under the basic option, fewer military beneficiaries would enroll in the FEHB program than under the other two options that enrich the benefits of military beneficiaries. Because of data limitations, CBO could not estimate the effects on the average FEHB health insurance premiums for each option for various age and sex combinations. Instead, CBO analyzed the effect on the average FEHB health insurance premiums based on the entire population of eligible military beneficiaries, excluding active-duty personnel.

To estimate the effect of enrolling military beneficiaries in the FEHB program with the average FEHB premiums--based on the total population of military beneficiaries eligible to enroll in an FEHB plan--CBO compared the relative health care costs of the eligible military population with people currently covered by the FEHB program. CBO determined the difference in relative health care costs of the two groups by weighting each population group using a set of demographic factors provided by the Congressional Research Service (CRS). Demographic adjusters represent the relative health care cost difference between age and sex groups (see Table C-4). CRS developed those adjusters based on several data sources, including an analysis conducted by Hay/Huggins Company, Inc., of the commercial insured population, the 1987 National Medical Expenditure Survey, and the Office of Personnel Management.

Using those demographic adjusters, CBO calculated weighted populations for eligible military beneficiaries and those covered by the FEHB program. A comparison of those weighted populations suggests that the relative health care costs of those two different population groups are similar (see Table C-5). Both weighted population groups have health care costs that are about 7 percent lower than the population on which the demographic adjusters are based.

Note that CBO used a weight of 0.70 for beneficiaries who are 65 years of age or older, although the demographic adjuster for this age/sex group is in fact 2.50. The rationale for using a weight of 0.70 for this population group is based on the assumption that their health care costs are 70 percent of those of the average worker when Medicare is the primary payer, according to CRS. All of the FEHB options

discussed in this paper assume that Medicare would be the primary payer; the FEHB program would serve only as the secondary payer. Had the FEHB options not been constructed in this way, then CBO would have used a weight of 2.50.

TABLE C-4. DEMOGRAPHIC ADJUSTERS USED TO DETERMINE THE RELATIVE HEALTH CARE COSTS OF POPULATION GROUPS (By age and sex)

Age	Demographic Adjuster
Male	
0-4	0.94
5-14	0.36
15-17	0.71
18-24	0.50
25-34	0.55
35-44	0.73
45-64	1.48
65 and Over[a]	2.50
Female	
0-4	0.94
5-14	0.36
15-17	0.71
18-24	0.75
25-34	0.85
35-44	1.08
45-64	1.53
65 and Over[a]	2.50

SOURCE: Congressional Budget Office based on data provided by the Congressional Research Service.

NOTE: Demographic adjusters shown on this table represent the relative health costs for an individual assuming that the average health care cost for an individual is 1.0.

a. If Medicare is the primary payer, the demographic adjuster is 0.70.

TABLE C-5. AGE AND SEX DISTRIBUTION OF ELIGIBLE MILITARY BENEFICIARIES AND PEOPLE COVERED BY THE FEHB PROGRAM (In thousands)

	Military Beneficiary Population[a]			FEHB Population[b]		
Age	Actual	Weighted	Percentage Difference	Actual	Weighted	Percentage Difference
			Males			
0-4	260	246	-5.6	256	241	-5.6
5-14	501	182	-63.8	573	207	-63.8
15-17	145	103	-29.0	181	128	-29.0
18-24	176	88	-50.0	260	130	-50.0
25-34	44	24	-45.0	495	272	-45.0
35-44	173	126	-27.5	719	521	-27.5
45-64	925	1,364	47.5	1,185	1,748	47.5
65 and Over[c]	613	429	-30.0	630	441	-30.0
Total	2,838	2,561	-9.7	4,298	3,689	-14.2
			Females			
0-4	251	237	-5.6	255	241	-5.6
5-14	484	175	-63.8	586	212	-63.8
15-17	143	102	-29.0	197	140	-29.0
18-24	366	274	-25.0	278	209	-25.0
25-34	405	345	-15.0	545	463	-15.0
35-44	404	434	7.5	855	919	7.5
45-64	909	1,386	52.5	1,193	1,819	52.5
65 and Over[c]	534	374	-30.0	540	378	-30.0
Total	3,496	3,326	-4.8	4,450	4,382	-1.5
			Entire Population			
0-4	511	482	-5.6	511	482	-5.6
5-14	985	357	-63.8	1,159	420	-63.8
15-17	288	205	-29.0	378	268	-29.0
18-24	542	363	-33.1	538	339	-37.1
25-34	449	369	-17.9	1,040	736	-29.3
35-44	577	560	-3.0	1,574	1,441	-8.5
45-64	1,834	2,751	50.0	2,378	3,567	50.0
65 and Over[c]	1,147	803	-30.0	1,170	819	-30.0
Total	6,333	5,888	-7.0	8,748	8,071	-7.7

SOURCE: Congressional Budget Office computations based on the demographic adjusters provided by the Congressional Research Service.

NOTE: FEHB = Federal Employees Health Benefits.

a. Includes all eligible military beneficiaries in the United States, excluding all uniformed personnel, in fiscal year 1995.

b. Includes all individuals covered by the FEHB program, as reported in the Current Population Survey in 1994.

c. A weight of 0.70 was used to calculate the weighted population of both military beneficiaries and the population with health care coverage under the FEHB program.